

2018 Call for Projects Benefit Cost Analysis Questions (All Investment Categories)

Project: **Perry Avenue Extension**

1. Safety Benefits
 - a. **\$3,616,000 (see attached)**
2. Delay Benefits
 - a. **\$212,000 (see attached)**
3. Emissions Benefits
 - a. **\$0 (see attached)**
4. Additional BCA Documentation (Optional)
 - a. **A figure showing the existing traffic volumes as part of the screenline analysis is attached.**
5. Additional BCA Documentation (Optional)
 - a. **A spreadsheet showing the 2018, 2025, and 2045 HGAC volumes adjusted for the screenline analysis is attached.**
6. Please provide a brief narrative describing the methodology, input data and results. (Optional)

The HGAC 2018 peak period volume projections were adjusted using existing turning movement counts (TMC) and a screenline analysis with Perry Avenue, IH 10, and FM 565. Volumes on Perry Avenue were determined based on the number of travel lanes between Perry Avenue (2 lanes), IH 10 frontage roads (4 lanes), and FM 565 (2 lanes). Due to the planned reconstruction of the interchange of IH 10 at Eagle Drive, it is expected that more traffic than predicted by HGAC will use Perry Avenue as an alternate to travel east-west.

The difference between the existing TMC data and the H-GAC data was applied to 2018, 2025, and 2045 peak period projections. The adjusted 24-hour volumes were obtained by using the same ratio used by H-GAC to obtain the peak period volumes.

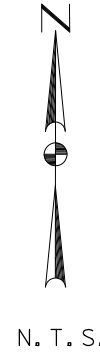
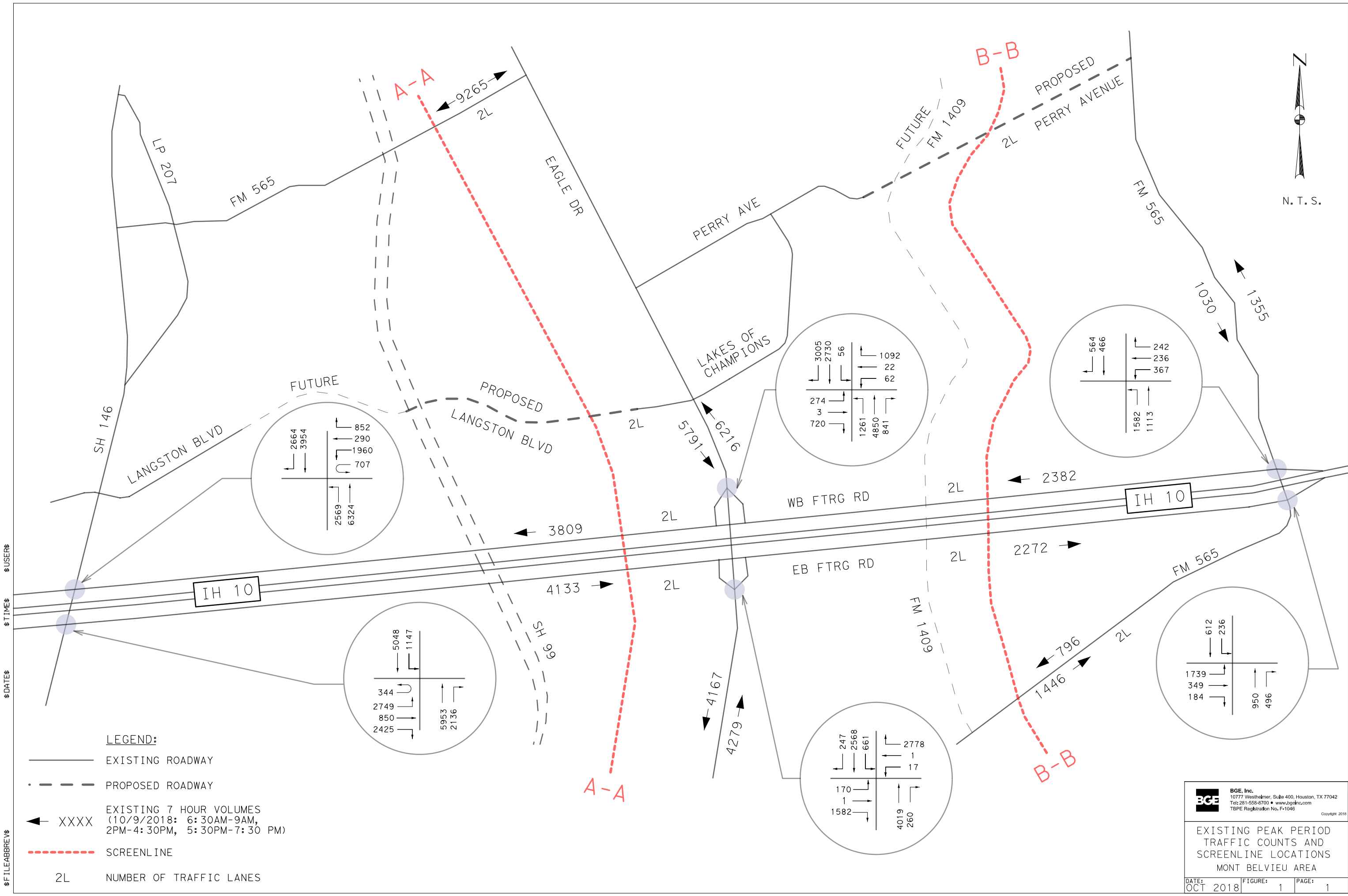
Using the provided HGAC variables and a total construction cost of \$6,000,000, the BCA was calculated based on the equation:

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$) / Funding Requested

Total Benefits: \$3,828,000

Total Federal Funding Requested: \$3,828,000

B/C: 1.00



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H-GAC VOLUME PROJECTIONS FOR MONT BELVIEU TIP APPLICATION PROJECTS											
Project	2018 PkPeriod Vol	2018 24Hr Vol	2018 PkPeriod Cap	2025 PkPeriod Vol	2025 24Hr Vol	2025 PkPeriod Cap	2045 PkPeriod Vol	2045 24Hr Vol	2045 PkPeriod Cap	Estimated FFSpd (2018)	Avg Corrdor Spd (2018)
Perry Avenue - from 1/2 mile east of Lake Champions Blvd to FM 565	594	1,067	10,360	1,433	2,455	10,360	5,322	10,042	10,360	54	50

VOLUMES ADJUSTED BY SCREENLINE ANALYSIS											
Project	2018 PkPeriod Vol*	2018 24Hr Vol	2018 PkPeriod Cap	2025 PkPeriod Vol	2025 24Hr Vol	2025 PkPeriod Cap	2045 PkPeriod Vol	2045 24Hr Vol	2045 PkPeriod Cap	Estimated FFSpd (2018)	Avg Corrdor Spd (2018)
Perry Avenue - from 1/2 mile east of Lake Champions Blvd to FM 565	2,318	4,140	10,360	3,157	5,443	10,360	7,046	13,294	10,360	54	50

*Note: The 2018 peak period volume adjustment was made in anticipation of construction at the interchange of IH 10 and Eagle Dr, expected to last three years

Barbers Hill ISD Traffic Study

The following school study highlights the need for east-west connections with the anticipated reconstruction of the interchange of IH 10 at Eagle Drive. With approximately half of the students within the school district residing south of IH 10, school traffic will need to find an alternate route to school. The two most viable alternatives to Eagle Drive are SH 146 to the west and FM 565 to the east.



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CERTIFIED

Technical Memorandum

To: City of Mont Belvieu

From: Courtney Carr, P.E.

Date: October 29, 2018

Subject: Eagle Drive/FM 3180, SH 146, FM 565 Traffic Study, Mont Belvieu, TX

The City of Mont Belvieu requested a traffic study for the intersections of IH-10 Frontage Roads at SH 146, Eagle Drive/FM 3180 and FM 565. Turning movement counts were taken at all the intersections on October 9th, 2018 for three time periods. The three time periods were the AM Peak Hour (6:30 to 9:00 AM), School Dismissal (2:00 to 4:30 PM), and PM Peak Hour (5:30 to 7:30 PM).

Eagle Drive/FM 3180 is proposed to be renovated in the coming years and will be closed during construction. The City requested that the three roadways be analyzed for two conditions: the existing condition and the construction condition with Eagle Drive closed. The existing Eagle Drive traffic volumes were redistributed to SH 146 and FM 565, based on a general 50% split between the two roadways and the more direct path for vehicles.

Synchro was utilized to analyze the conditions to find delay, level of service, and 95th percentile queue. The results are shown in the table below. The closure of Eagle Drive will greatly increase the delay and queues at SH 146 and FM 565 intersections.



Intersection	Condition	Result	AM Peak Hour												
			Intersection	EB			WB			NB			SB		
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Eagle Drive/FM 3180 at Westbound IH-10 Frontage Road	Existing	LOS/Delay	A/9.8	D/40.5	-	A/0.2	D/37.6	C/33.8	B/14.6	A/6.0	B/11.7	A/3.4	B/13.2	B/13.3	A/3.0
		95th % Queue	-	22	-	0	32	11	73	56	544	39	12	244	59
Eagle Drive/FM 3180 at Eastbound IH-10 Frontage Road	Existing	LOS/Delay	C/19.5	-	F/920.3	B/11.1	-	E/36.9	F/64.8	A/0	-	-	A/9.8	-	-
		95th % Queue	-	-	52.5	15	-	0	252.5	0	-	-	5	-	-
SH 146 at Westbound Frontage Road	Existing	LOS/Delay	C/34.4	-	-	-	E/73.8	E/65.9	C/27.3	D/49.8	A/5.2	-	-	E/68.4	B/18.5
		95th % Queue	-	-	-	-	247	150	150	478	344	-	-	289	219
	Construction	LOS/Delay	F/106.3	-	-	-	E/74.5	E/66.3	C/28.4	D/50.3	A/6.4	-	-	F/85.8	F/311.3
95th % Queue		-	-	-	-	247	150	154	423	500	-	-	388	1593	
SH 146 at Eastbound Frontage Road	Existing	LOS/Delay	D/39.6	F/236.3	F/104.0	B/17.0	-	-	-	-	C/23.5	A/2.7	C/26.2	A/5.0	-
		95th % Queue	-	581	299	105	-	-	-	-	272	49	51	7	-
	Construction	LOS/Delay	E/73.3	F/448.9	F/165.3	E/71.8	-	-	-	-	C/26.7	A/3.4	C/20.6	B/10.6	-
95th % Queue		-	852	433	383	-	-	-	-	413	59	35m	5	-	
FM 565 at Westbound Frontage Road	Existing	LOS/Delay	B/12.8	-	-	-	B/10.3	A/9.3	-	-	C/15.3	-	-	A/9.8	-
		95th % Queue	-	-	-	-	7.5	7.5	-	-	110	-	-	37.5	-
	Construction	LOS/Delay	F/214.3	-	-	-	C/16	D/34.4	-	-	F/351.6	-	-	F/176.2	-
95th % Queue		-	-	-	-	30	167.5	-	-	1277.5	-	-	697.5	-	
FM 565 at Eastbound Frontage Road	Existing	LOS/Delay	B/12.5	C/15.4	A/8.5	-	-	-	-	-	B/11.3	-	-	A/10	-
		95th % Queue	-	77.5	7.5	-	-	-	-	-	45	-	-	20	-
	Construction	LOS/Delay	F/114.9	F/93.4	B/12.3	-	-	-	-	-	F/189.4	-	-	E/42.1	-
95th % Queue		-	375	20	-	-	-	-	-	765	-	-	217.5	-	
Intersection	Condition	Result	School Dismissal Peak Hour												
			Intersection	EB			WB			NB			SB		
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Eagle Drive/FM 3180 at Westbound IH-10 Frontage Road	Existing	LOS/Delay	B/11.1	D/42.9	-	A/0.9	D/40.3	-	A/1.4	A/8.6	A/8.8	A/2.5	B/15.5	C/25.6	A/3.8
		95th % Queue	-	59	-	0	17	-	0	87	306	34	8	506	63
Eagle Drive/FM 3180 at Eastbound IH-10 Frontage Road	Existing	LOS/Delay	C/24.4	-	-	C/21.2	-	F/118.2	F/98.3	A/0	-	-	A/9.5	-	-
		95th % Queue	-	-	-	92.5	-	7.5	447.5	0	-	-	17.5	-	-
SH 146 at Westbound Frontage Road	Existing	LOS/Delay	C/33.4	-	-	-	E/74.6	E/65.4	A/8.8	D/49.4	A/6.2	-	-	E/71.3	B/11.2
		95th % Queue	-	-	-	-	262	153	48	384	361	-	-	339	124
	Construction	LOS/Delay	F/137.3	-	-	-	E/74.6	E/65.4	A/8.8	E/56.3	A/7.6	-	-	F/129.8	F/378.2
95th % Queue		-	-	-	-	262	153	48	340	449	-	-	564	1876	
SH 146 at Eastbound Frontage Road	Existing	LOS/Delay	E/58.7	F/276.3	F/167.4	E/75.7	-	-	-	-	C/24.2	A/7.0	C/27.9	A/4.3	-
		95th % Queue	-	636	439	452	-	-	-	-	291	124	151	2	-
	Construction	LOS/Delay	F/161.7	F/629.3	F/326.3	F/407.9	-	-	-	-	C/26.5	A/7.0	C/20.3	C/25.0	-
95th % Queue		-	1059	643	1081	-	-	-	-	397	124	50	538	-	
FM 565 at Westbound Frontage Road	Existing	LOS/Delay	B/11.3	-	-	-	A/9.9	A/9.2	-	-	B/12.9	-	-	A/8.9	-
		95th % Queue	-	-	-	-	10	12.5	-	-	80	-	-	20	-
	Construction	LOS/Delay	F/151.2	-	-	-	C/20.5	C/18.5	-	-	F/208.8	-	-	F/175.1	-
95th % Queue		-	-	-	-	67.5	67.5	-	-	835	-	-	745	-	
FM 565 at Eastbound Frontage Road	Existing	LOS/Delay	B/12.7	C/16	A/8.3	-	-	-	-	-	A/9.8	-	-	B/10.1	-
		95th % Queue	-	87.5	5	-	-	-	-	-	25	-	-	22.5	-
	Construction	LOS/Delay	F/146.7	F/222.8	C/15.2	-	-	-	-	-	F/72.4	-	-	F/174	-
95th % Queue		-	725	47.5	-	-	-	-	-	327.5	-	-	645	-	
Intersection	Condition	Result	PM Peak Hour												
			Intersection	EB			WB			NB			SB		
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Eagle Drive/FM 3180 at Westbound IH-10 Frontage Road	Existing	LOS/Delay	B/15.5	D/44.1	C/34	B/13	D/37.8	D/36.1	B/15	A/8.5	B/19.6	A/3.2	B/17.7	B/18.8	A/3.4
		95th % Queue	-	79	5	54	24	20	63	81	795	29	20	319	60
Eagle Drive/FM 3180 at Eastbound IH-10 Frontage Road	Existing	LOS/Delay	D/33.1	-	-	C/21.4	-	F/58.9	F/133.5	A/0	-	-	A/9.2	-	-
		95th % Queue	-	-	-	117.5	-	2.5	542.5	0	-	-	10	-	-
SH 146 at Westbound Frontage Road	Existing	LOS/Delay	D/35.3	-	-	-	E/74.9	E/64.7	B/18.0	E/55.5	A/7.1	-	-	E/72.8	B/10.2
		95th % Queue	-	-	-	-	284	164	101	420	434	-	-	356	102
	Construction	LOS/Delay	F/83.2	-	-	-	E/74.9	E/64.7	B/18.0	E/65.4	B/17.1	-	-	F/133.2	F/201.0
95th % Queue		-	-	-	-	284	164	101	329	511	-	-	519	1189	
SH 146 at Eastbound Frontage Road	Existing	LOS/Delay	F/93	F/432.2	F/259.7	F/113.3	-	-	-	-	C/25.5	A/5.7	C/29.5	A/4.2	-
		95th % Queue	-	831	562	559	-	-	-	-	348	95	167	0	-
	Construction	LOS/Delay	F/234.7	F/909.6	F/484.9	F/483.8	-	-	-	-	C/28.1	A/5.7	C/23.9	B/11.5	-
95th % Queue		-	1369	825	1237	-	-	-	-	468	95	73	531	-	
FM 565 at Westbound Frontage Road	Existing	LOS/Delay	D/25.5	-	-	-	B/11.3	B/10.4	-	-	D/34.2	-	-	A/9.8	-
		95th % Queue	-	-	-	-	15	20	-	-	285	-	-	22.5	-
	Construction	LOS/Delay	F/307.5	-	-	-	D/25.6	E/41.4	-	-	F/576.4	-	-	F/104	-
95th % Queue		-	-	-	-	87.5	192.5	-	-	2052.5	-	-	420	-	
FM 565 at Eastbound Frontage Road	Existing	LOS/Delay	C/20.5	D/28.3	A/9.6	-	-	-	-	-	C/18.8	-	-	B/12.1	-
		95th % Queue	-	172.5	12.5	-	-	-	-	-	122.5	-	-	32.5	-
	Construction	LOS/Delay	F/200	F/290.5	C/20.1	-	-	-	-	-	F/254.5	-	-	F/102.8	-
95th % Queue		-	880	85	-	-	-	-	-	897.5	-	-	402.5	-	

Eagle Drive at WBFR

Leg Direction Start Time	Eagle Dr Southbound				App Tot	Peds	CV	Peds	C	WBFR I-10 Westbound				App Tot	Peds	CV	Peds	C	Eagle Dr Northbound				App Tot	Peds	CV	Peds	C	WBFR I-10 Eastbound				Int	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Leg	FM 565										EBFR I-10										FM 565										EBFR I-10									
Direction	Southbound					Westbound					Northbound					Eastbound																								
Start Time	Right	Thru	Left	U-Turn	App Total	Peds	CW	Peds	CC	Right	Thru	Left	U-Turn	App Total	Peds	CW	Peds	CC	Right	Thru	Left	U-Turn	App Total	Peds	CW	Peds	CC	Right	Thru	Left	U-Turn	App Total	Peds	CW	Peds	CC	Int Total			
2018-10-09 06:30:00	0	17	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	11	50	0	0	61	0	0	0	5	18	75	0	98	0	0	0	176	717				
2018-10-09 06:45:00	0	31	9	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	11	66	0	0	77	0	0	0	4	11	74	0	89	0	0	0	206	729				
2018-10-09 07:00:00	0	26	16	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	16	52	0	0	68	0	0	0	6	14	59	0	79	0	0	0	189	684				
2018-10-09 07:15:00	0	25	5	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	23	25	0	0	48	0	0	0	4	16	48	0	68	0	0	0	146	625				
2018-10-09 07:30:00	0	30	12	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	22	44	0	0	66	0	0	0	4	9	66	1	80	0	0	0	188	612				
2018-10-09 07:45:00	0	22	11	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	13	31	0	0	44	0	0	0	4	14	66	0	84	0	0	0	161	528				
2018-10-09 08:00:00	0	22	7	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	9	27	0	0	36	0	0	0	2	7	56	0	65	0	0	0	130	472				
2018-10-09 08:15:00	0	17	10	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17	0	0	34	0	0	0	2	17	53	0	72	0	0	0	133	445				
2018-10-09 08:30:00	0	15	11	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	20	21	0	0	41	0	0	0	8	6	23	0	37	0	0	0	104	442				
2018-10-09 08:45:00	0	10	5	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	16	17	0	0	33	0	0	0	6	15	36	0	57	0	0	0	105	470				
2018-10-09 14:00:00	0	18	7	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	10	13	0	0	23	0	0	0	7	8	40	0	55	0	0	0	103	474				
2018-10-09 14:15:00	0	22	8	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	14	20	0	0	34	0	0	0	5	8	53	0	66	0	0	0	130	512				
2018-10-09 14:30:00	0	18	9	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	8	21	0	0	29	0	0	0	9	12	55	0	76	0	0	0	132	530				
2018-10-09 14:45:00	0	14	5	0	19	0	0	2	0	0	0	0	0	2	0	0	0	0	13	24	0	0	37	0	0	0	1	7	43	0	51	0	0	0	109	530				
2018-10-09 15:00:00	0	16	8	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	18	30	0	0	48	0	0	0	6	5	58	0	69	0	0	0	141	566				
2018-10-09 15:15:00	0	24	7	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	20	21	0	0	41	0	0	0	6	10	60	0	76	0	0	0	148	611				
2018-10-09 15:30:00	0	14	8	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	18	17	0	0	35	0	0	0	2	9	64	0	75	0	0	0	132	681				
2018-10-09 15:45:00	0	22	5	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	17	21	0	0	38	0	0	0	3	24	53	0	80	0	0	0	145	799				
2018-10-09 16:00:00	0	27	13	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	23	25	0	0	48	0	0	0	7	7	84	0	98	0	0	0	186	910				
2018-10-09 16:15:00	0	38	17	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	17	27	0	0	44	0	0	0	7	20	92	0	119	0	0	0	218	985				
2018-10-09 17:30:00	0	33	15	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	22	60	0	0	82	0	0	0	20	28	72	0	120	0	0	0	250	1016				
2018-10-09 17:45:00	0	28	11	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	30	73	0	0	103	0	0	0	12	15	87	0	114	0	0	0	256	967				
2018-10-09 18:00:00	0	29	12	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	32	67	0	0	99	0	0	0	12	16	93	0	121	0	0	0	261	846				
2018-10-09 18:15:00	0	25	8	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	35	68	0	0	103	0	0	0	8	14	91	0	113	0	0	0	249	707				
2018-10-09 18:30:00	0	23	4	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	21	44	0	0	65	0	0	0	13	9	87	0	109	0	0	0	201	571				
2018-10-09 18:45:00	0	15	5	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	13	31	0	0	44	0	0	0	9	6	56	0	71	0	0	0	135					
2018-10-09 19:00:00	0	15	5	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	14	22	0	0	36	0	0	0	4	14	48	0	66	0	0	0	122					
2018-10-09 19:15:00	0	16	3	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	13	16	0	0	29	0	0	0	8	10	47	0	65	0	0	0	113					
Grand Total	0	612	236	0	848	0	0	2	0	0	0	0	0	2	0	0	0	0	496	950	0	0	1446	0	0	0	184	349	1739	1	2273	0	0	0	4569					
% Approach	0.0%	72.2%	27.8%	0.0%				100.0%	0.0%	0.0%	0.0%			34.3%	65.7%	0.0%	0.0%									8.1%	15.4%	76.5%	0.0%											
% Total	0.0%	13.4%	5.2%	0.0%	18.6%			0.0%	0.0%	0.0%	0.0%			10.9%	20.8%	0.0%	0.0%									4.0%	7.6%	38.1%	0.0%	49.7%										
Lights	0	572	214	0	786			2	0	0	0	2		463	920	0	0									166	242	1663	1	2072						4243				
% Lights	0.0%	93.5%	90.7%	0.0%	92.7%			100.0%	0.0%	0.0%	0.0%	100.0%		93.3%	96.8%	0.0%	0.0%									90.2%	69.3%	95.6%	100.0%	91.2%						92.9%				
Articulated Trucks	0	18	20	0	38			0	0	0	0	0		22	5	0	0									13	93	39	0	145						210				
% Articulated Trucks	0.0%	2.9%	8.5%	0.0%	4.5%			0.0%	0.0%	0.0%	0.0%	0.0%		4.4%	0.5%	0.0%	0.0%									7.1%	26.6%	2.2%	0.0%	6.4%						4.6%				
Buses and Single-Unit Trucks	0	22	2	0	24			0	0	0	0	0		11	25	0	0									5	14	37	0	56						116				
% Buses and Single-Unit Truck	0.0%	3.6%	0.8%	0.0%	2.8%			0.0%	0.0%	0.0%	0.0%	0.0%		2.2%	2.6%	0.0%	0.0%									2.7%	4.0%	2.1%	0.0%	2.5%						2.5%				
Pedestrians						0	0								0	0															0	0								
% Pedestrians						0.0%	0.0%								0.0%	0.0%															0.0%	0.0%								

Leg	FM 565					WBFR I-10					FM 565					West															
Direction	Southbound					Westbound					Northbound					Eastbound															
Start Time	Right	Thru	Left	U-Turn	App Tot	Peds C\	Peds C\	Right	Thru	Left	U-Turn	App Tot	Peds C\	Peds C\	Right	Thru	Left	U-Turn	App Tot	Peds C\	Peds C\	Right	Thru	Left	U-Turn	App Tot	Peds C\	Peds C\	Int	Total	
2018-10-09 06:30:00	2	1	0	0	3	0	0	2	14	18	0	34	0	0	0	0	124	0	124	0	0	0	0	0	0	0	0	0	0	161	741
2018-10-09 06:45:00	48	22	0	0	70	0	0	6	7	17	0	30	0	0	0	19	117	0	136	0	0	0	0	0	0	0	0	0	236	792	
2018-10-09 07:00:00	29	30	0	0	59	0	0	3	5	11	0	19	0	0	0	14	103	0	117	0	0	0	0	0	0	0	0	0	195	742	
2018-10-09 07:15:00	33	18	0	0	51	0	0	8	5	11	0	24	0	0	0	24	50	0	74	0	0	0	0	0	0	0	0	0	149	685	
2018-10-09 07:30:00	44	28	0	0	72	0	0	8	11	13	0	32	0	0	0	28	80	0	108	0	0	0	0	0	0	0	0	0	212	659	
2018-10-09 07:45:00	46	23	0	0	69	0	0	5	5	10	0	20	0	0	0	21	76	0	97	0	0	0	0	0	0	0	0	0	186	542	
2018-10-09 08:00:00	16	15	0	0	31	0	0	3	3	14	0	20	0	0	0	14	73	0	87	0	0	0	0	0	0	0	0	0	138	441	
2018-10-09 08:15:00	15	18	0	0	33	0	0	6	5	9	0	20	0	0	0	26	44	0	70	0	0	0	0	0	0	0	0	0	123	427	
2018-10-09 08:30:00	16	16	0	0	32	0	0	3	8	9	0	20	0	0	0	14	29	0	43	0	0	0	0	0	0	0	0	0	95	433	
2018-10-09 08:45:00	12	7	0	0	19	0	0	1	5	7	0	13	0	0	0	22	31	0	53	0	0	0	0	0	0	0	0	0	85	477	
2018-10-09 14:00:00	19	12	0	0	31	0	0	8	21	10	0	39	0	0	0	20	34	0	54	0	0	0	0	0	0	0	0	0	124	514	
2018-10-09 14:15:00	17	16	0	0	33	0	0	3	10	10	0	23	0	0	0	32	41	0	73	0	0	0	0	0	0	0	0	0	129	529	
2018-10-09 14:30:00	22	15	0	0	37	0	0	9	5	12	0	26	0	0	0	36	40	0	76	0	0	0	0	0	0	0	0	0	139	550	
2018-10-09 14:45:00	16	7	0	0	23	0	0	10	10	10	0	30	0	0	0	30	39	0	69	0	0	0	0	0	0	0	0	0	122	551	
2018-10-09 15:00:00	15	19	0	0	34	0	0	5	6	8	0	19	0	0	0	42	44	0	86	0	0	0	0	0	0	0	0	0	139	571	
2018-10-09 15:15:00	17	14	0	0	31	0	0	6	13	16	0	35	0	0	0	29	55	0	84	0	0	0	0	0	0	0	0	0	150	618	
2018-10-09 15:30:00	24	14	0	0	38	0	0	6	10	8	0	24	0	0	0	36	42	0	78	0	0	0	0	0	0	0	0	0	140	678	
2018-10-09 15:45:00	9	13	0	0	22	0	0	18	11	15	0	44	0	0	0	44	32	0	76	0	0	0	0	0	0	0	0	0	142	793	
2018-10-09 16:00:00	19	22	0	0	41	0	0	12	8	19	0	39	0	0	0	60	46	0	106	0	0	0	0	0	0	0	0	0	186	899	
2018-10-09 16:15:00	19	36	0	0	55	0	0	7	14	16	0	37	0	0	0	71	47	0	118	0	0	0	0	0	0	0	0	0	210	948	
2018-10-09 17:30:00	26	24	0	0	50	0	0	35	15	24	0	74	0	0	0	71	60	0	131	0	0	0	0	0	0	0	0	0	255	958	
2018-10-09 17:45:00	23	16	0	0	39	0	0	23	5	21	0	49	0	0	0	83	77	0	160	0	0	0	0	0	0	0	0	0	248	902	
2018-10-09 18:00:00	18	22	0	0	40	0	0	12	5	18	0	35	0	0	0	87	73	0	160	0	0	0	0	0	0	0	0	0	235	796	
2018-10-09 18:15:00	13	14	0	0	27	0	0	10	6	18	0	34	0	0	0	91	68	0	159	0	0	0	0	0	0	0	0	0	220	671	
2018-10-09 18:30:00	14	13	0	0	27	0	0	12	9	15	0	36	0	0	0	76	60	0	136	0	0	0	0	0	0	0	0	0	199	551	
2018-10-09 18:45:00	18	12	0	0	30	0	0	8	12	8	0	28	0	0	0	47	37	0	84	0	0	0	0	0	0	0	0	0	142		
2018-10-09 19:00:00	7	9	0	0	16	0	0	7	4	11	0	22	0	0	0	42	30	0	72	0	0	0	0	0	0	0	0	0	110		
2018-10-09 19:15:00	7	10	0	0	17	0	0	6	4	9	0	19	0	0	0	34	30	0	64	0	0	0	0	0	0	0	0	0	100		
Grand Total	564	466	0	0	1030	0	0	242	236	367	0	845	0	0	0	1113	1582	0	2695	0	0	0	0	0	0	0	0	0	0	4570	
% Approach	54.8%	45.2%	0.0%	0.0%				28.6%	27.9%	43.4%	0.0%				0.0%	41.3%	58.7%	0.0%				0.0%	0.0%	0.0%	0.0%						
% Total	12.3%	10.2%	0.0%	0.0%	22.5%			5.3%	5.2%	8.0%	0.0%	18.5%			0.0%	24.4%	34.6%	0.0%	59.0%			0.0%	0.0%	0.0%	0.0%	0.0%					
Lights	554	438	0	0	992			209	212	331	0	752			0	1085	1505	0	2590			0	0	0	0	0				4334	
% Lights	98.2%	94.0%	0.0%	0.0%	96.3%			86.4%	89.8%	90.2%	0.0%	89.0%			0.0%	97.5%	95.1%	0.0%	96.1%			0.0%	0.0%	0.0%	0.0%					94.8%	
Articulated Trucks	3	20	0	0	23			28	15	18	0	61			0	9	36	0	45			0	0	0	0	0				129	
% Articulated Trucks	0.5%	4.3%	0.0%	0.0%	2.2%			11.6%	6.4%	4.9%	0.0%	7.2%			0.0%	0.8%	2.3%	0.0%	1.7%			0.0%	0.0%	0.0%	0.0%					2.8%	
Buses and Single-Unit Trucks	7	8	0	0	15			5	9	18	0	32			0	19	41	0	60			0	0	0	0	0				107	
% Buses and Single-Unit Trucks	1.2%	1.7%	0.0%	0.0%	1.5%			2.1%	3.8%	4.9%	0.0%	3.8%			0.0%	1.7%	2.6%	0.0%	2.2%			0.0%	0.0%	0.0%	0.0%					2.3%	
Pedestrians						0	0						0	0						0	0										
% Pedestrians						0.0%	0.0%						0.0%	0.0%						0.0%	0.0%										

6:30-9:2:00-4:5:30-7:
6:45-7:4:30-5:5:30-6:
792 678 958

Leg	SH 146				I-10 EBFR				SH 146				I-10 EBFR																							
Direction	Southbound				Westbound				Northbound				Eastbound																							
Start Time	Right	Thru	Left	U-Turn	App	Tot	Peds	Cv	Peds	C	Right	Thru	Left	U-Turn	App	Tot	Peds	Cv	Peds	C	Right	Thru	Left	U-Turn	App	Tot	Peds	Cv	Peds	C	Int	Total				
2018-10-09 06:30:00	0	206	20	0	226	0	0	0	0	0	0	0	0	0	0	333	0	0	0	0	75	27	137	6	245	0	0	0	804					2941	6:30-9: 2:00-4: 5:30-7: 6:30-7: 3:30-4: 5:30-6: 2941 3348 3695	
2018-10-09 06:45:00	0	216	41	0	257	0	0	0	0	0	0	0	0	0	0	313	0	0	0	69	6	108	14	197	0	0	0	767					2809			
2018-10-09 07:00:00	0	193	19	0	212	0	0	0	0	0	0	0	0	0	0	274	0	0	0	58	22	104	21	205	0	0	0	691					2743			
2018-10-09 07:15:00	0	190	30	0	220	0	0	0	0	0	0	0	0	0	0	296	0	0	0	53	26	76	8	163	0	0	0	679					2670			
2018-10-09 07:30:00	0	206	37	0	243	0	0	0	0	0	0	0	0	0	0	258	0	0	0	65	24	68	14	171	0	0	0	672					2597			
2018-10-09 07:45:00	0	197	40	0	237	0	0	0	0	0	0	0	0	0	0	277	0	0	0	69	20	88	10	187	0	0	0	701					2508			
2018-10-09 08:00:00	0	165	31	0	196	0	0	0	0	0	0	0	0	0	0	285	0	0	0	59	11	61	6	137	0	0	0	618					2352			
2018-10-09 08:15:00	0	203	37	0	240	0	0	0	0	0	0	0	0	0	0	201	0	0	0	64	18	72	11	165	0	0	0	606					2399			
2018-10-09 08:30:00	0	180	30	0	210	0	0	0	0	0	0	0	0	0	0	215	0	0	0	68	16	67	7	158	0	0	0	583					2450			
2018-10-09 08:45:00	0	174	31	0	205	0	0	0	0	0	0	0	0	0	0	197	0	0	0	55	17	66	5	143	0	0	0	545					2571			
2018-10-09 14:00:00	0	170	45	0	215	0	0	0	0	0	0	0	0	0	0	244	0	0	0	76	34	85	11	206	0	0	0	665					2693			
2018-10-09 14:15:00	0	147	35	0	182	0	0	0	0	0	0	0	0	0	0	258	0	0	0	88	26	92	11	217	0	2	0	657					2756			
2018-10-09 14:30:00	0	158	39	0	197	0	0	0	0	0	0	0	0	0	0	280	0	0	0	101	32	87	7	227	0	0	0	704					2811			
2018-10-09 14:45:00	0	166	29	0	195	0	0	0	0	0	0	0	0	0	0	250	0	0	0	85	29	102	6	222	0	2	0	667					2851			
2018-10-09 15:00:00	0	171	44	0	215	0	0	0	0	0	0	0	0	0	0	270	0	0	0	99	37	92	15	243	0	0	0	728					3018			
2018-10-09 15:15:00	0	169	40	0	209	0	0	0	0	0	0	0	0	0	0	293	0	0	0	79	23	96	12	210	0	0	0	712					3116			
2018-10-09 15:30:00	0	157	41	0	198	0	0	0	0	0	0	0	0	0	0	299	0	0	0	80	41	116	10	247	0	0	0	744					3348			
2018-10-09 15:45:00	0	171	52	0	223	0	0	0	0	0	0	0	0	0	0	360	0	0	0	97	35	112	7	251	0	0	0	834					3585			
2018-10-09 16:00:00	0	191	57	0	248	0	0	0	0	0	0	0	0	0	0	326	0	0	0	112	27	104	9	252	0	0	0	826					3689			
2018-10-09 16:15:00	0	239	65	0	304	0	0	0	0	0	0	0	0	0	0	328	0	0	0	116	52	129	15	312	0	0	0	944					3751			
2018-10-09 17:30:00	0	264	78	0	342	0	0	0	0	0	0	0	0	0	0	313	0	0	0	103	39	169	15	326	0	5	0	981					3695			
2018-10-09 17:45:00	0	191	44	0	235	0	0	0	0	0	0	0	0	0	0	390	0	0	0	117	43	145	8	313	0	3	0	938					3475			
2018-10-09 18:00:00	0	142	40	0	182	0	0	0	0	0	0	0	0	0	0	368	0	0	0	117	54	148	19	338	0	0	0	888					3254			
2018-10-09 18:15:00	0	190	56	0	246	0	0	0	0	0	0	0	0	0	0	356	0	0	0	95	39	124	28	286	0	0	0	888					3099			
2018-10-09 18:30:00	0	160	49	0	209	0	0	0	0	0	0	0	0	0	0	322	0	1	0	93	36	83	18	230	0	0	0	761					2810			
2018-10-09 18:45:00	0	146	40	0	186	0	0	0	0	0	0	0	0	0	0	302	0	0	0	113	31	63	22	229	0	0	0	717								
2018-10-09 19:00:00	0	143	55	0	198	0	0	0	0	0	0	0	0	0	0	262	0	0	1	116	52	85	20	273	0	0	0	733								
2018-10-09 19:15:00	0	143	22	0	165	0	0	0	0	0	0	0	0	0	0	219	0	0	0	103	33	70	9	215	0	0	0	599								
Grand Total	0	5048	1147	0	6195	0	0	0	0	0	0	0	0	1	1	2136	5953	0	0	0	2425	850	2749	344	6368	0	12	0	20652							
% Approach	0.0%	81.5%	18.5%	0.0%					0.0%	0.0%	0.0%	0.0%								26.4%	73.6%	0.0%	0.0%					38.1%	13.3%	43.2%	5.4%					
% Total	0.0%	24.4%	5.6%	0.0%	30.0%				0.0%	0.0%	0.0%	0.0%	0.0%			10.3%	28.8%	0.0%	0.0%	39.2%				11.7%	4.1%	13.3%	1.7%	30.8%								
Lights	0	4441	1028	0	5469				0	0	0	0	0			1826	5452	0	0	7278				2266	732	2421	314	5733						18480		
% Lights	0.0%	88.0%	89.6%	0.0%	88.3%				0.0%	0.0%	0.0%	0.0%				85.5%	91.6%	0.0%	0.0%	90.0%				93.4%	86.1%	88.1%	91.3%	90.0%						89.5%		
Articulated Trucks	0	474	71	0	545				0	0	0	0	0			246	350	0	0	596				91	72	262	18	443						1584		
% Articulated Trucks	0.0%	9.4%	6.2%	0.0%	8.8%				0.0%	0.0%	0.0%	0.0%				11.5%	5.9%	0.0%	0.0%	7.4%				3.8%	8.5%	9.5%	5.2%	7.0%						7.7%		
Buses and Single-Unit Trucks	0	133	48	0	181				0	0	0	0	0			64	151	0	0	215				68	46	66	12	192						588		
% Buses and Single-Unit Trucks	0.0%	2.6%	4.2%	0.0%	2.9%				0.0%	0.0%	0.0%	0.0%				3.0%	2.5%	0.0%	0.0%	2.7%				2.8%	5.4%	2.4%	3.5%	3.0%						2.8%		
Pedestrians						0	0							1	1					0	0					0	12									
% Pedestrians						0.0%	0.0%							100.0%	100.0%					0.0%	0.0%					0.0%	100.0%									

Leg	SH 146				I-10 WBFR								SH 146								I-10 WBFR										
Direction	Southbound				Westbound								Northbound								Eastbound										
Start Time	Right	Thru	Left	U-Turn	App Tot	Peds	CV	Peds	CC	Right	Thru	Left	U-Turn	App Tot	Peds	CV	Peds	CC	Right	Thru	Left	U-Turn	App Tot	Peds	CV	Peds	CC	Int	Total		
2018-10-09 06:30:00	108	148	0	0	256	0	0	0	0	59	14	54	16	143	0	0	0	0	0	315	76	0	0	391	0	0	0	0	0	790	
2018-10-09 06:45:00	112	148	0	0	260	0	0	0	0	50	12	80	23	165	0	0	0	0	0	250	98	0	0	348	0	0	0	0	0	773	
2018-10-09 07:00:00	105	145	0	0	250	0	0	0	0	37	9	53	22	121	0	0	0	0	0	213	113	0	0	326	0	0	0	0	0	697	
2018-10-09 07:15:00	142	127	0	0	269	0	0	0	0	36	12	79	18	145	0	0	0	0	0	174	124	0	0	298	0	0	0	0	0	712	
2018-10-09 07:30:00	144	162	0	0	306	0	0	0	0	29	8	53	22	112	0	0	0	0	0	143	99	0	0	242	0	0	0	0	0	660	
2018-10-09 07:45:00	112	157	0	0	269	0	0	0	0	35	12	52	7	106	0	0	0	0	0	179	116	0	0	295	0	0	0	0	0	670	
2018-10-09 08:00:00	103	98	0	0	201	0	0	0	0	32	10	78	27	147	0	0	0	0	0	157	111	0	0	268	0	0	0	0	0	616	
2018-10-09 08:15:00	100	125	0	0	225	0	0	0	0	26	10	78	17	131	0	0	0	0	0	134	70	0	0	204	0	0	0	0	0	560	
2018-10-09 08:30:00	103	132	0	0	235	0	0	0	0	40	13	62	22	137	0	0	0	0	0	149	71	0	0	220	0	0	0	0	0	592	
2018-10-09 08:45:00	105	139	0	0	244	1	0	0	0	25	11	61	21	118	0	0	0	0	0	160	67	0	0	227	0	0	0	0	0	589	
2018-10-09 14:00:00	73	132	0	0	205	0	1	0	0	14	5	86	21	126	0	1	0	0	0	181	58	0	0	239	0	0	0	0	0	570	
2018-10-09 14:15:00	77	119	0	0	196	0	0	0	0	24	7	63	15	109	1	0	0	0	0	206	91	0	0	297	0	0	0	0	0	602	
2018-10-09 14:30:00	76	98	0	0	174	0	0	0	0	17	14	77	23	131	0	0	0	0	0	202	80	0	0	282	0	0	0	0	0	587	
2018-10-09 14:45:00	75	130	0	0	205	0	0	0	0	13	11	68	17	109	0	0	0	0	0	210	71	0	0	281	0	0	0	0	2	595	
2018-10-09 15:00:00	90	137	0	1	228	0	0	0	0	29	7	70	17	123	0	1	0	0	0	214	84	2	0	300	0	0	0	0	0	651	
2018-10-09 15:15:00	80	134	0	0	214	0	1	0	0	18	8	80	34	140	0	0	0	0	0	249	72	0	0	321	0	0	0	0	0	675	
2018-10-09 15:30:00	81	130	0	0	211	0	0	0	0	22	5	63	24	114	0	0	0	0	0	265	94	0	0	359	0	0	0	0	0	684	
2018-10-09 15:45:00	105	163	0	0	268	0	0	0	0	31	15	66	21	133	0	0	0	0	0	301	95	2	0	398	0	0	0	0	0	799	
2018-10-09 16:00:00	99	148	0	0	247	0	0	0	0	35	15	80	21	151	0	0	0	0	0	254	91	0	0	345	0	0	0	0	0	743	
2018-10-09 16:15:00	155	221	0	0	376	0	1	0	0	22	7	81	33	143	0	1	0	0	0	308	100	0	0	408	0	0	0	0	0	927	
2018-10-09 17:30:00	145	273	0	0	418	0	0	0	0	48	15	77	37	177	0	0	0	0	0	310	106	0	0	416	0	0	0	0	0	1011	
2018-10-09 17:45:00	63	138	0	0	201	1	0	0	0	39	8	92	48	187	1	0	0	0	0	323	121	0	0	444	0	0	0	0	0	832	
2018-10-09 18:00:00	64	119	0	0	183	0	0	0	0	38	11	71	39	159	0	0	0	0	0	321	86	0	1	407	0	0	0	0	0	749	
2018-10-09 18:15:00	71	162	0	0	233	0	0	0	0	25	13	78	25	141	0	0	0	0	0	301	109	0	0	410	0	0	0	0	0	784	
2018-10-09 18:30:00	82	136	0	0	218	0	0	0	0	39	6	57	31	133	0	0	0	0	0	250	108	0	0	358	0	0	0	0	0	709	
2018-10-09 18:45:00	76	91	0	0	167	0	0	0	0	27	17	85	41	170	0	0	0	0	0	194	92	0	0	286	0	0	0	0	0	623	
2018-10-09 19:00:00	56	131	0	0	187	0	0	0	0	22	11	59	38	130	0	0	0	0	0	186	87	0	0	273	0	0	0	0	0	590	
2018-10-09 19:15:00	62	111	0	0	173	0	0	0	0	20	4	57	27	108	0	0	0	0	0	175	79	0	0	254	0	0	0	0	0	535	
Grand Total	2664	3954	0	1	6619	2	3	0	0	852	290	1960	707	3809	2	3	0	0	0	6324	2569	4	0	8897	0	1	0	0	0	0	19325
% Approach	40.2%	59.7%	0.0%	0.0%						22.4%	7.6%	51.5%	18.6%						0.0%	71.1%	28.9%	0.0%			0.0%	0.0%	0.0%	0.0%			
% Total	13.8%	20.5%	0.0%	0.0%	34.3%					4.4%	1.5%	10.1%	3.7%	19.7%					0.0%	32.7%	13.3%	0.0%		46.0%				0.0%			
Lights	2380	3537	0	1	5918					737	234	1672	655	3298					0	5683	2387	2		8072				0		17288	
% Lights	89.3%	89.5%	0.0%	100.0%	89.4%					86.5%	80.7%	85.3%	92.6%	86.6%					0.0%	89.9%	92.9%	50.0%		90.7%				0.0%		89.5%	
Articulated Trucks	204	295	0	0	499					81	50	236	32	399					0	476	114	0		590				0		1488	
% Articulated Trucks	7.7%	7.5%	0.0%	0.0%	7.5%					9.5%	17.2%	12.0%	4.5%	10.5%					0.0%	7.5%	4.4%	0.0%		6.6%				0.0%		7.7%	
Buses and Single-Unit Truc	80	122	0	0	202					34	6	52	20	112					0	165	68	2		235				0		549	
% Buses and Single-Unit Tr	3.0%	3.1%	0.0%	0.0%	3.1%					4.0%	2.1%	2.7%	2.8%	2.9%					0.0%	2.6%	2.6%	50.0%		2.6%				0.0%		2.8%	
Pedestrians						2	3								2	3								0	1				2	2	
% Pedestrians						100.0%	100.0%								100.0%	100.0%								0.0%	100.0%				100.0%	100.0%	